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Institute for Vocational
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Chapter **04**

Technical and Vocational Education and Training Ecosystem Connecting Learning, Work and Life

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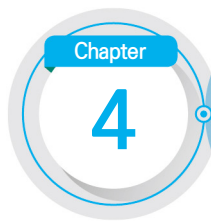
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Section 1 Introduction

Amid rapid shifts in the environment such as low birth rates, aging populations, technological innovations, socio-cultural transformations, the climate crisis, and COVID-19, there is a growing need to establish a true lifelong technical and vocational education and training (TVET) platform—a system that supports those who are interested in participating in learning throughout their lives. The current lifelong TVET has revealed several limitations. While learners are the agents of learning activity, they remain disconnected from active learning. They are alienated from the space of learning that is supposed to bring education, work, and life together. Moreover, the learners are only given opportunities to participate in an efficiency-oriented TVET without having their individual characteristics considered. Based on the needs to address the drawbacks found in the current lifelong education system—discontinuity of career development, fragmented delivery of education, and the denial of opportunities to participate in learning—as well as to support the well-being of individuals, this paper suggests tasks to transition to a lifelong TVET ecosystem that integrates education, work, and life.

Figure 4-1. Lifelong TVET Diagnosis and Innovation Tasks to Cope with Changes

| TVET-Related Environmental Change | TVET Diagnosis | Innovation Tasks (Keywords) |
|--|---|---|
| Low birth rates, aging populations | Aggravating discontinuity – In career development – in education content | Lifelong TVET linking education, work, and life |
| Fourth Industrial Revolution (technological innovations) | Worsening fragmentation – among stakeholders – within communities | A legal system to support inclusive participation |
| Climate issues (climate crisis, going green, etc.) | Deepening alienation – inequality in TVET opportunities – inequality in job opportunities | A sustainable local TVET community |
| COVID-19 pandemic (community, etc.) | | Tailored support for workplace learning |
| | | “School to Work, Work to School” transition |

Section

2

Current Status and Problems

4.2.1 Are opportunities for participation equal to all who pursue lifelong TVET?

The current lifelong TVET fails to provide enough opportunities for those who seek to acquire vocational education to participate in institutional arrangements (Park et al., 2019). A case in point is the secondary education, where students are alienated from TVET as their opportunities to participate are limited due to the lack of understanding as well as the negative perception of TVET. Therefore, to improve the TVET divide that learners face at each stage of their lives, we must establish a customized lifelong TVET system in which everyone can participate in diverse ways at any period of time.

4.2.2 Does the current TVET support the competency development of all laborers?

South Korea boasts a high level of human capital and innovation capacity (Park et al., 2021; WEF, 2019; World Bank, 2019), but must reckon with the fact that its competitiveness depends primarily on its conglomerates. The difference in labor productivity between large and small companies are the largest among the OECD member countries (OECD, 2020a). The main drivers behind such differences include TVET participation rates and methods. In the case of large corporates, the proportion of wage workers participating in non-formal education and training sponsored by employers stands at 63.9%, 4% higher than the OECD average of 59.9%, while that of small companies is below the OECD average (OECD, 2020b). In addition, while large enterprises actively utilize external resources such as external education and training and Internet learning (e-learning), SMEs tend to rely heavily on internal resources in the form of in-house education and training (OECD, 2020a). Therefore, to bridge the divide between small and large enterprises, the government needs to expand opportunities for all workers to participate in developing a high-quality TVET.

4.2.3 Can lifelong TVET contribute to the establishment of a local education community that helps youth learners settle in their native areas?

The migratory flow of young people into the Seoul metropolitan area is caused by the lack of opportunities in their native areas where they were born and raised. However, there have been a few policies on youth employment, in particular for those with only high-school diplomas, which can unite them with their native communities. In order to solve the youth unemployment problem and create conditions that are favorable for them to settle in their native communities, we must prioritize the establishment of a cooperative and linked system that brings together jobs, economic activity and education, centered on a “local TVET community” consisting of local TVET institutions, companies, NGOs, and local governments (Lee et al., 2020). In addition, we must provide career direction for young people to settle in their native communities and lead sustainable lives by offering support customized to each life stage.

Section 3 Policy Suggestions**4.3.1 Establish a lifelong TVET system that can bridge the TVET divide.**

A. A lifelong TVET support system should be built as a social safety net that helps individuals live a life of dignity through work.

A system that links learning, work, qualifications, and life must be created to solve the social imbalance stemming from discrimination based on educational background or academic qualifications, assess the performance of individuals based on a merit system, and help individuals continue to develop their job competencies as well as capacity to live a life of dignity. To this end, first, we must reinforce the practice of citizenship education, going beyond the current TVET model, which is focused on building skill mastery. Furthermore, opportunities for TVET as well as vouchers for lifelong learning should be promptly and continuously provided to the underprivileged. To bridge the TVET divide, we must also create and operate a “one-stop information system for lifelong learning” that analyzes the needs and characteristics of individuals and provides personalized service.

B. A post-employment learning system should be created leveraging the Korean Qualifications Framework (KQF).

The Korean Qualifications Framework (KQF) is an integrated system of levels shared between educational and vocational qualifications. It is designed to support individuals to manage their careers and develop competencies throughout their lives in diverse ways, such as working while learning, engaging in lifelong learning and vocational training, and acquiring field experience. Moreover, it can greatly contribute to managing the quality of TVET programs by encouraging them to focus on competency and performance development. In particular, the KQF promotes the free movement for workers once they enter the labor market through the recognition of their various career experiences, while also promoting their access to overseas jobs through linkage with the National Qualifications Framework (NQF) of other countries. The KQF is expected to contribute to improving the overall quality of

lifelong education since it can help individuals manage their careers and focus on the development of competencies through a wide range of methods.

C. The current academic system should be overhauled to be more flexible to ensure anyone interested can access the system to prepare for future changes and live a life of dignity.

A fundamental reform of the academic system at the higher TVET phase is required, through which “general universities aiming for TVET” or “community colleges with outstanding vocational education conditions” can be selected to open and operate job-based programs or nanodegree courses based on the KQF. As these programs allow not only college students but also workers and local residents to acquire skills and competencies needed to get a job at local companies and settle in local communities, local universities can develop their identities as lifelong learning institutions while creating public value.

4.3.2 Enact the Framework Act on Technical and Vocational Education and Training (tentative, hereinafter referred to as the “TVET Framework Act”) to allow anyone interested to pursue learning

A. The TVET Framework Act should be enacted to allow anyone interested to access educational and training programs.

To ensure that TVET can positively respond to changes in the environment, including demographic transformations and the Fourth Industrial Revolution, and contribute to the self-realization of individuals and the development of the nation, the government must urgently establish a proper legal basis for TVET. The TVET Framework Act should be enacted as a practical legal basis, which prescribes the responsibility of the central and local governments; establishment and implementation of mid- to long-term development plans; creation and operation of a policy review board; and financing, facilities, equipment and materials for TVET (Yun et al., 2020).

B. Relevant acts should be amended to ensure the effective implementation of the TVET Framework Act.

First, the Elementary and Secondary Education Act should be amended to clarify the definition of TVET, types of TVET educational institutions, and guidelines for on-the-job (OJT) training; strengthen standards on qualification tests for TVET subjects; improve the evaluation of teacher training institutions; and better protect the safety of students.

Second, we must revise the Higher Education Act to redefine the purpose of lifelong TVET offered by community colleges, stipulate the diversification of the number of years required for graduation, and prescribe the systematic operation of educational stages and TVET institutions.

Third, the Industrial Education Enhancement and Industry-Academia-Research Cooperation Promotion Act should be amended to set forth the definition of industrial education and educational institutions, the role of city and provincial superintendents in industrial education, and the delivery system for promoting central and regional industrial education; and boost the participation of companies in TVET.

Fourth, the Vocational Education and Training Promotion Act should be amended to regulate support for the OJT training such as field practicums while promoting education and training programs to foster teachers and help them develop practical competencies.

4.3.3 Establish a “local TVET community” to help youth live a sustainable life in their local areas

A. Creating a local TVET community will allow young people to serve as talents in local areas rather than migrate to the Seoul Metropolitan Area only to find themselves embroiled in intense competition.

The population density of the Seoul Metropolitan Area in South Korea (47.4%) is one of the highest among the OECD member countries, with 47.4% of the nation’s businesses and 71.7% of its corporate R&D workforce concentrated in a single area

(Lee et al., 2020). The high concentration of population and businesses in the Seoul Metropolitan Area has an adverse impact on marriage and child-rearing due to increases in housing costs, which leads to corresponding declines in local population. To enable youth to design their future career pathways and navigate a more sustainable life, policy support is a necessary prerequisite to avoid excess concentration in the metropolitan area and tap young people as local talents. In particular, policies for local communities should be designed to help create local jobs, enhance the innovative capabilities of local businesses, and educate local talents, which together will empower local communities to build resilient, self-sustaining economies.

B. Job creation for youth within a socio-economic community should be realized to help them lead sustainable lives.

In order to allow young people to live more sustainable lives as local talents, we must discuss the establishment of a local TVET community. When schools and local communities actively engage in communication and cooperation centered on the “local TVET community”—which is founded on the values of co-growth, whole village education, and social economy—they will create and maintain a system that contributes to job creation and provides welfare services to youth, thereby helping them maintain a sustainable life.

C. Lifecycle support should be offered to youth that is tailored to each phase.

To this end, specific policies are proposed as follows to establish a “local TVET community” and provide youth with lifecycle support for their exploration of career pathways, job pursuit, realization of well-being, and lifelong education.

Table 4-1. TVET Linking Local Schools and Companies for Youth Lifecycle Support

| Phase | Support Policy | Details (plan) |
|---|---|---|
| While attending school | TVET tailored to local jobs | <ul style="list-style-type: none"> - Exploring job opportunities in local companies through OJT, internships, etc. - Managing education records through the establishment of a career counseling system |
| When unemployed after graduation | Incentives for employment and mentoring programs | <ul style="list-style-type: none"> - Providing programs through local governments, local job centers, and associations - Creating a space for youth |
| When employed (after landing a job) | Subsidies for youth and businesses | <ul style="list-style-type: none"> - Offering incentives to youth when employed - Granting subsidies to companies to support the settlement for youth upon employment |
| When learning after employment (lifelong education) | Capacity development as a local community member | <ul style="list-style-type: none"> - Providing opportunities for lifelong education such as capacity building for personal development and job competency improvement - Offering local vouchers for lifelong education |
| During long-term settlement | Support for a long-term settlement in local communities | <ul style="list-style-type: none"> - Supporting youth to strengthen their identity as independent citizens as well as members of their local community and workplace - Providing support for housing and other forms of welfare |

4.3.4 Establish a TVET system in each workplace to create a learning and working environment

A. All employees of SMEs must be given opportunities to participate in a higher, lifelong TVET, and a process-oriented education management system should be developed to promote their education.

In order to empower SMEs to become more competitive and fast-track their innovative technologies, it is necessary to provide their employees with access to a lifelong TVET and manage their education history. To this end, first, a modular degree program—a learning model that allows learners to take courses and gain credits from different universities as needed—can be introduced. Second, we must create a track-record system to manage the process-oriented learning by employees of SMEs so that their education process, rather than results, can be socially recognized.

- B. Time for education should be permitted across all workplaces, and spontaneous study groups in SMEs should be supported.

Under the aim of raising the participation rates and standards of SMEs in TVET, study groups should be promoted. First, based on the perspective that working necessarily implies learning and learning itself can be defined as work (Jeon et al., 2019), it is necessary to allow employees to set aside sufficient time for education during working hours. Second, to establish a sustainable and spontaneous study group model, it is essential to create study groups and foster specialists in running the groups by leveraging retired experts.

- C. Those who are marginalized in TVET, such as small business owners and special employment workers, should be given opportunities to participate in TVET.

It is estimated that small business owners and special employment workers account for more than 20% of the employed population in South Korea (Ministry of SMEs and Startups and Statistics Korea, 2020). Although they play an important socio-economic role in the country, their opportunities to participate in TVET are insufficient. To address this issue, first, customized education should be provided centered on regional TVET institutions through the identification of educational demand. Second, we must establish an integrated online TVET platform and learning-history management system, which will promote the accessibility of learning to small business owners and special employment workers.

4.3.5 Support an uninterrupted “School-to-Work, Work-to-School” transition

- A. More opportunities for TVET should be given to all interested high-school students through a high-school credit system.

The demand for TVET has been on the rise among high school students who do not attend vocational high schools. As a result, there is a growing consensus calling for the provision of TVET for general high-school students and students who have dropped out (Yoon et al., 2018; Han et al., 2014). Suggestions to expand their

opportunities to participate in TVET are as follows. First, a high-school credit system should be introduced to offer more opportunities for high school students to take TVET courses. Second, measures should be developed to scale the exchange of credits between vocational and general high schools and expand the credit system of vocational high schools through extracurricular or co-op programs into general high schools.

B. A curriculum that cultivates the fundamental and basic academic abilities of middle- and high-school students should be deployed.

Some specialized high-school students fail to acquire the necessary basic academic abilities. To ensure that all secondary school students acquire basic academic abilities, first, we must improve the current curriculum, such as creating a separate course to allow all students to nurture basic academic abilities and expanding programs to offer emotional support and counseling services (Ahn, 2020a). Second, the full-scale diagnostic evaluation of the basic academic abilities of specialized high school students should be conducted to strengthen the monitoring of their academic attainment.

C. The scale of secondary TVET should be optimized by each industry by reflecting the needs of students and companies.

To respond to shifts in the industrial landscape and the decrease in the school-age population, we must optimize the scale of secondary vocational education by industrial sector through the incorporation of the needs of students and businesses. In this respect, while managing at the national level groups of subjects related to the occupations that create the foundation of South Korea's industrial fields (Ahn, 2020b), majors available in vocational high schools should be diversified by taking into account the preferences of students. In addition, we must develop a database of quality jobs by industry, which can be utilized as guidelines for the reorganization of departments at vocational high schools.

D. More support for high school graduates should be provided to help them find their place in the labor market.

From a long-term perspective, support for high school graduates should be provided as follows to help them settle in society after graduation (Ahn, 2019; Ahn, 2020a). First, policy support is needed to help high school graduates establish their initial careers in the labor market based on their requirements and career development needs. Second, we must institutionalize the career pathways of high school graduates within the company, taking into consideration the characteristics of each industrial sector. Third, management of the quality of jobs taken by high school graduates should be institutionalized, to set minimum quality standards. Fourth, a system should be established in which high school graduates develop practical competencies through TVET and their competencies are properly evaluated in the labor market.

Section 4 Conclusion

The suggestions for establishing a lifelong TVET ecosystem in which work-learning-life are connected are summarized as follows. First, to provide all citizens with continued opportunities for lifelong TVET, it is necessary to create a culture of learning as well as a system that recognizes individual competencies. Second, building a social consensus is required on the application of the Korean Qualifications Framework (KQF) and Sectoral Qualifications Framework (SQF), which share common levels of academic and vocational qualifications, to ensure the diverse and successful career development of South Korean citizens. Third, the academic model of a lifelong TVET should be reorganized to become more flexible so that anyone interested can complete educational programs anytime, anywhere. Fourth, the Framework Act on Technical and Vocational Education and Training (tentative) should be enacted, which will establish a unified legal basis for TVET to guarantee the right to education, freedom to choose one's occupation, freedom of contract, and right to an adequate standard of living guaranteed by the Constitution. Today, regulations on TVET remain scattered across different laws. Fifth, a "local TVET

community project” should be implemented to offer policy support for young talents to settle in local communities and live a sustainable life. Sixth, to support the seamless transition from school to work, a project to support post-employment learning should be introduced, and cooperative governance and policies should be prepared to empower schools to become more competent and revitalize the local economy. These initiatives are expected to contribute to proactively solving current and future social challenges by preventing the extinction of local communities, promoting the role of a regional educational community, and supporting the settlement of young talents in their local communities.



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